January 8, 2026

Microchip Releases Custom Firmware For NVIDIA DGX Spark For Its MEC1723 Embedded Controllers

Solution delivers secure boot, power management and system control for complex computing

CHANDLER, Ariz., Jan. 08, 2026 (GLOBE NEWSWIRE) -- Microchip Technology **(Nasdaq: MCHP)** has announced the release of custom-designed firmware for its **MEC1723 Embedded Controller** (EC), specifically tailored to support NVIDIA DGX Spark personal AI supercomputers. The software is designed to optimize the MEC1723 EC's capabilities for system management of AI workloads on the NVIDIA DGX platform. By focusing on firmware innovation within its controllers, Microchip is helping to improve performance and security in demanding AI computing architectures.

Embedded controllers play an important role in managing power sequencing, alerts and system-level energy regulation. In this application, the MEC1723 EC goes a step further to also manage critical firmware operations.

- Secure firmware authentication: firmware code is digitally signed and authenticated by NVIDIA, helping to maintain platform integrity.
- Root of Trust for system boot: cryptographic verification of the firmware using Elliptic Curve Cryptography (ECC-P384) public key technology. This establishes the root of trust for the entire laptop, which is critical because the EC is the first device to power on and authorize secure system boot.
- Advanced power management: handles battery charging, alerts and system power state transitions to optimize energy efficiency.
- System control: oversees key scan and keypad operations for reliable user input.
- New host interface support: implements packet command format processing unique to the NVIDIA DGX interface, advancing beyond traditional byte-level data transfers.
- Value-added integration: incorporates Electromagnetic Interference (EMI) and Static Random-Access Memory (SRAM) interfaces to improve overall system performance.

"The collaboration between Microchip and NVIDIA helps deliver secure, tailored firmware solutions that address the complex needs of modern computing platforms," said Nuri Dagdeviren, corporate vice president of Microchip Technology's secure computing group. "Our MEC1723 firmware is customized to provide reliable operation and advanced functionality for NVIDIA DGX architecture, supporting the evolving requirements of client computing."

Microchip's MEC embedded controllers are designed to support the next generation of notebook and desktop applications across industrial, data center and consumer markets. These controllers provide advanced system management, security features and efficient power management, making them suitable for today's high-performance computing needs. To learn more, download the **MEC1723 EC datasheet**.

Resources
High-res images available through Flickr or editorial contact (feel free to publish):
• Application
image: **https://www.flickr.com/photos/microchiptechnology/55020036705/sizes/o/**

About Microchip Technology:
Microchip Technology Inc. is a broadline supplier of semiconductors committed to making innovative design easier through total system solutions that address critical challenges at the intersection of emerging technologies and durable end markets. Its easy-to-use development tools and comprehensive product portfolio supports customers throughout the design process, from concept to completion. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support and delivers solutions across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. For more information, visit the Microchip website at **www.microchip.com**.

Note: The Microchip name and logo and the Microchip logo are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. All other trademarks mentioned herein are the property of their respective companies.

Editorial Contact:
Amber Liptai
480-792-5047
amber.liptai@microchip.com

Source: Microchip Technology Inc.